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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,393	07/09/2003	Toyoshi Yasuda	S011-5066	9784

7590

05/14/2004

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EXAMINER

WRIGHT, ANDREW D

ART UNIT

PAPER NUMBER

3617

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,393

Applicant(s)

YASUDA ET AL.

Examiner

Andrew Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 5-10 and 14-20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/9/03, 11/10/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) received on 7/9/03 and 11/13/03 have been considered and placed in the file.

Specification

2. The disclosure is objected to because of the following informalities: page 20, line 14, "32" should be --32h--; page 21 line 23, "30" should be --30b--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrera (US 6,419,535) in view of Takayanagi (US 5,873,756) and Yoshiyuki et al. (JP-A-HEI-8-99693, provided by applicant). Herrera shows an outboard motor with an engine, an top cover (10) and a lower cover (12). The top cover is releasably detachable from the under cover along generally horizontal edges. The under cover comprises left and right cover members that are detachably connected along vertical edges (see figures 1, 2, and 4). All of the above is well known and common in the art. Herrera shows numerous openings formed in the under cover. One such opening comprises U-shaped cutouts (25) formed along the vertical edge of each of the left and

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right members (column 3, lines 50-55, and figures 4, 10, and 11). Another such opening is not numbered or described but is clearly visible in figures 1, 2, and 4. As shown in figure 4, the opening is formed by U-shaped cutouts in each of the left and right cover members. The cutouts, and therefore the opening, is vertically spaced from the upper horizontal edge of the under cover. The cutouts, and therefore, the opening, extend contiguously from the vertical edge of the left and right cover members. The opening will necessarily allow some form of access to the engine room. Herrera does not disclose a lid attached to the outer surface of the under cover and deformable to open and close the opening. Takayanagi teaches that access openings are known in conventional outboard motor covers (column 1, lines 5-20 and 64-65). Takayanagi further teaches that it is known to provide sealing structures for access holes to prevent introduction of water into the under cover (column 2, lines 1-5). Yoshiyuki shows an outboard motor with access opening (49) in the undercover. Yoshiyuki shows that the access openings can be sealed with rubber plugs (50). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Herrera by providing a rubber plug for the opening. The motivation would be to prevent water from entering the under cover. The rubber plug shown by Yoshiyuki has an outer edge that is attached by outer surface of the under cover. The rubber plug is deformable such that it can be inserted and removed in the opening.

5. Regarding claim 2, Herrera does not show that the engine and crankshaft and does not show that the opening is for access to a spark plug unit. Both Takayanagi and Yoshiyuki show an engine disposed with horizontal cylinders and a vertical crankshaft

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with the cylinder head, including the spark plug units, facing aft. Access openings are strategically located for whatever engine part the designer desires to provide access to. For example, Yoshiyuki shows an access opening over a cylinder head bolt, and Takayanagi shows access openings over a drain hole and a mounting bolt. It is well known that spark plugs require frequent inspection and maintenance. With the teaching of Yoshiyuki and Takayanagi as a starting point, it would be within the range of knowledge of the skilled artisan to locate and size the opening such that the spark plugs are accessible through the opening. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Herrera by using an engine with a vertical crankshaft and horizontal cylinder, and locating and sizing the opening such that the spark plugs are accessible through the opening. The motivation would be to provide easy access to an item that requires frequent inspection.

6. Regarding claim 3, Herrera discloses that the under cover is made of fiberglass which is a synthetic resin material.

7. Regarding claim 4, Herrera shows the opening is formed by U-shaped cutouts in each of the left and right cover members. The cutouts, and therefore the opening, is vertically spaced from the upper horizontal edge of the under cover. The cutouts, and therefore, the opening, extend contiguously from the vertical edge of the left and right cover members.

8. Regarding claim 11, the lid of the modified invention is a rubber plug like that shown by Yoshiyuki. The lid has a seal portion that fits in the opening (see figure 4 of Yoshiyuki). Regarding claim 12, the seal portion has a groove that receives an edge of

the opening. Regarding claim 13, the lid has a continuous seal lip that extends around the groove. The seal lip engages the outer surface of the under cover.

Allowable Subject Matter

9. Claims 5-10 and 14-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Davies ('559) teaches that various inspection and access covers are provided at various parts of the engine cover, including cover (170). Elingsen shows an engine cover with a removable front shield that covers an opening that provides access to the engine. Crane et al. ('396) shows an engine cover with a removable lid. Dunham ('618) shows an engine cover with a detachable access cover (550) (figures 6-8). Rinzaki ('341) is the US counterpart to a foreign application disclosed by applicant and shows an access hole with cover, the hole providing access to the engine head. Feehan ('921) shows an opening in an engine cover and a rubber plug similar to that of Yoshiyuki.

11. Any inquiry concerning this communication should be directed to examiner Andrew D. Wright at telephone number (703) 308-6841. The examiner can normally be reached Monday-Friday from 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano, can be reached at (703) 308-0230. The fax number for

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official communications is 703-872-9306. The fax number directly to the examiner for unofficial communications is 703-746-3548.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist at (703) 308-1113.

Andrew D. Wright
Patent Examiner
Art Unit 3617

AW 5/12/04